

**WHAT IS CLAIMED IS:**

1. A method of improving the quality of manufactured modules, comprising:
  - issuing a quality ticket identifying a defective module and a symptom thereof;
  - storing the quality ticket in a database;
  - determining a defect of the defective module based on the quality ticket stored in the database and by utilizing a knowledge base stored in the database;
  - logging a repair suggestion in the quality ticket based on said defect determination;
  - performing a repair action intended to repair the defective module based on the logged repair suggestion;
  - logging the repair action to the defective module in the quality ticket;
  - testing the repaired module to determine if the defect has been corrected; and
  - updating the knowledge base according to said testing.
2. The method according to claim 1,  
wherein the knowledge base utilized in said determining step provides a list of repair actions that successfully repaired the defect identified in the quality ticket.
3. The method according to claim 1, wherein the knowledge base utilized in said determining step provides a list of repair actions that successfully repaired the defect identified in the quality ticket and the frequency of the repair actions.
4. The method according to claim 1,

wherein the knowledge base utilized in said determining step provides a list of defects and defect frequency for the symptom identified in the quality ticket.

5. The method according to claim 1, further comprising:
  - associating a process with the detected symptom;
  - said issuing a quality ticket including identifying the defective module, the symptom, and the process associated with the detected symptom.
6. The method according to claim 1, further comprising:
  - associating a process and a process step with the detected symptom;
  - said issuing a quality ticket including identifying the defective module, the symptom, the process associated with the detected symptom, and the process step associated with the detected symptom.
7. The method according to claim 1,
  - said logging the repair suggestion including logging module component identification information and the repair action taken for each module component repaired or replaced.
8. The method according to claim 1,
  - repeating said determining, said logging the repair suggestion, said repairing, said logging the repair action and said testing if said testing determines that the defect has not been corrected.

9. The method according to claim 1,  
utilizing a graphical user interface to perform said issuing, said determining, said  
logging the repair suggestion, and said logging the repair action.
10. The method according to claim 1,  
said storing the quality ticket storing the quality ticket in a networked database.
11. A system for improving the quality of manufactured modules, comprising:  
a network;  
a database operatively connected to said network, said database storing a  
knowledge base and a quality ticket identifying a defective module and a symptom  
thereof;  
a workstation operatively connected to said database via said network, said  
workstation usable by an operator to determine a defect of the defective module based on  
the quality ticket and by utilizing the knowledge base stored in said database;  
said workstation also usable by the operator to log a repair suggestion in the  
quality ticket based on the defect determination and view the logged repair suggestion to  
aid in the repair of the defective module;  
said workstation further usable by the operator to log a repair action to the  
defective module in the quality ticket;  
said workstation further usable by the operator to provide feedback as to whether  
the defect has been corrected based on testing of a repaired module; and

said knowledge base being updated according to the feedback.

12. The system according to claim 11,

said knowledge base providing to said workstation a list of repair actions that successfully repaired the defect identified in the quality ticket.

13. The system according to claim 11,

said knowledge base providing to said workstation a list of repair actions that successfully repaired the defect identified in the quality ticket and the frequency of the repair actions.

14. The system according to claim 11,

said knowledge base providing to said workstation a list of defects and defect frequency for the symptom identified in the quality ticket.

15. The system according to claim 11,

said database associating a process with the identified symptom;  
said workstation usable to identify the defective module, the symptom, and the process associated with the symptom.

16. The system according to claim 11,

said database associating a process and a process step with the identified symptom;

said workstation usable to identify the defective module, the symptom, the process associated with the symptom, and the process step associated with the symptom.

17. The system according to claim 11,

said workstation usable to log repairs including logging module component identification information and repair actions taken for each module component repaired or replaced.

18. The system according to claim 11,

said workstation utilizing a graphical user interface.

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